

SKAGIT WATERSHED COUNCIL YEAR 2001 STRATEGIC APPROACH

Guiding Principles

PRINCIPLE #1: **Using the best available information, target the most biologically important areas for salmon restoration and protection.**

RATIONALE AND METHOD:

The overall strategy for salmon habitat restoration and protection for the Council is contained in our Strategy document (1998). We are focused on the restoration and protection of natural landscape processes rather than treating the symptoms of watershed degradation. The Strategic Approach laid out here is our effort for the year 2001 to provide a proactive method for meeting the goals of the Council's Strategy, updating the Council's Strategic Approach from last year. Through many discussions, we have arrived on a Strategic Approach that identifies specific areas in the Skagit and Samish River basins to target our restoration and protection efforts. By targeting certain areas we consider to be most important for salmon habitat restoration and protection, we significantly advance our objective to be more strategic in our project identification and prioritization, as well as all the work we do.

Though the Council will encourage and give preference to projects that are consistent this Strategic Approach and our Strategy, and located in target areas (*see attached map*), the Council will continue to accept for review projects throughout the Skagit and Samish basins. We recognize that many valuable and effective projects may be proposed in non-target areas and that extremely valuable habitat for salmon exists in non-target areas. The main distinction between the target areas and the rest of the basin is that the Council, for the year 2001 and until the next revision, will use the target areas as guidance for high priority restoration and protection actions based on the rationale explained below and in the attached map explanation. All proposed projects, whether in the target areas or not, will still need to be reviewed by the Council for consistency with the Strategy and this Strategic Approach. There is no assumption that a project is valuable or not valuable simply because of its location inside or outside the delineated target areas. Only projects found to be consistent with the Strategic Approach will be prioritized as part of the list submitted to the Salmon Recovery Funding Board in November.

Our method for identifying these target areas relies on the best information we have available on productivity and limiting factors for our most at risk salmon species in WRIAs 3 and 4: Skagit chinook and Skagit coho. These species are listed as depressed for the Skagit in the state's Salmonid Stock Inventory (SaSI) and Puget Sound chinook

are listed as threatened under the federal Endangered Species Act (ESA) (WDF et al 1993). Using specific data on coho and chinook limiting factors and productivity in the Skagit and Samish basins, specific areas were targeted for restoration and protection of habitat for these species. We are targeting chinook and coho at this time for several reasons: 1) their designated status as depressed or threatened; 2) they are species for which we have the best site-specific data on limiting factors and productivity; and 3) because of their life histories, the habitat preferences of these species comprise a wide range of habitat types in our basin and thus result in target areas generally consistent with the multiple-species recovery goals of the Council.

Because Coastal-Puget Sound bull trout has been listed as a threatened species under ESA and because the Skagit River basin supports the largest natural population of native char in the Puget Sound region (WDFW 1998), native char also receive special attention in our Strategic Approach. While much of the prime spawning habitat for native char in the Skagit basin is already protected in the North Cascades National Park and federally designated wilderness areas, we recognize that important migratory and rearing areas for these species requires restoration or further protection. While this Approach does not specifically target certain areas for native char habitat restoration or protection, partly because of the lack of specific information to date on limiting factors for native char, we believe the restoration and protection actions we are currently targeting (e.g., sediment supply reduction, floodplain restoration) will also have significant benefits for native char in the Skagit River basin as well as a regionally.

Again, we recognize that the target areas identified do not encompass all the important areas for all salmon in our basin. To attempt to do so would result in target areas covering all or nearly all the basin affecting the anadromous zone. Such a targeting strategy would have little value for prioritizing restoration and protection actions for the Council. *One example of an area in the basin that is not currently targeted using the rationale developed for this Strategic Approach is the Baker River system. Yet, we recognize the value of this area to salmon and its unique status at the moment because of the pending negotiations related to the dam relicensing (see attached map explanation).*

The method for identifying target areas is expected to be periodically revised as information improves, short-term objectives of the Council change, and long-term goals for salmon recovery in the Skagit and Samish evolve through Council discussion and regulatory mandates (e.g., 4(d) rules, ESA status, etc.)

PRINCIPLE #2: Within the target areas:

- 1) Protect the highest quality habitat first; and**
- 2) Establish (by means of restoration) key habitat**

RATIONALE AND METHOD:

The Council's Strategy as well as numerous studies, reports, peer-reviewed journal articles and books, describe the importance of protecting those remaining areas of habitat that still retain a substantial measure of their historic, natural productivity for salmon. These areas are variously known as refugia, source areas, anchor areas, and other names. In the Council's Strategy, these areas are generally referred to as key habitat. Specifically, the Strategy defines key habitat, *under pristine conditions*, as a habitat type critical for at least one life stage combination considered or is a preferred habitat type by a majority of life stage combinations considered. The Strategy defines habitat as key, *under disturbed habitat conditions*, when all the landscape screening results (e.g., riparian function, sediment supply) we use in the Strategy Application are rated as functioning. Protecting these highly functioning habitats through various tools (e.g., fee-simple acquisition, easements) is: 1) essential for anchoring highly productive spawning and rearing areas for long-term recovery, and 2) generally more cost-effective than attempting to restore degraded habitats to highly functioning areas.

However, given the degree of salmon habitat degradation locally as well as regionally, protecting key habitat/refugia alone will not be sufficient to ensure long-term survival or recovery of salmon. So, we also encourage the reestablishment of key habitat/refugia in the target areas through a variety of restoration tools (e.g., sediment reduction, riparian planting and fencing, isolated habitat reconnection, water quality enhancement, acquisition, easements, etc.) to occur simultaneous with protection efforts in order to 1) expand on the existing key habitat, and 2) restore key habitat/refugia in places in the basin where these habitats have been largely removed, and are therefore considered to be limiting factors for various species. We recognize that depending on the current conditions in our target areas, different combinations of restoration and protection tools will be appropriate. In some areas, protection actions will be dominant, while in more degraded areas, restoration actions may be dominant. We also recognize that the variety of tools to achieve restoration and protection are almost endless, however the Council's scope for project review and prioritization remains in voluntary actions and does not extend to regulatory or mandatory actions.

PRINCIPLE #3: Do the most cost-effective projects first.

RATIONALE AND METHOD:

In order to ensure the best and most efficient use of funds for projects identified in these target areas, we propose continuing to prioritize projects determined to be consistent with our Strategy based on cost-benefit formulas. Until a single formula is developed that can effectively rank projects of all types, we will utilize formulas developed by the Council for restoration and protection projects. For project types for which formulas have not been developed (e.g., assessments, monitoring programs, outreach) we will need to prioritize based on the collective agreement of a working committee of the Council. In order to meet the SRF Board's request to submit a single prioritized list of projects, final decisions for prioritization will need to be made by a working committee and the full Council using our guiding principles in combination with the results of our rankings based on cost-effectiveness. As always, our prioritization method will be subject to improvement as we work with it and receive feedback from members and outside reviewers.

Essential Elements

In addition to these guiding principles, the following, *in no particular order*, are other factors that we refer to as essential elements that are critical for our strategic approach:

- Comprehensive and current information (e.g., updates of Strategy Application data; fish productivity data)
- Fully functioning organizational infrastructure, including communication strategy, data management system, monitoring program, and reporting methods.
- Sufficient capacity within Council and member organizations
- Willing landowners within target areas
- Knowledgeable, supportive community

Target Area Map Explanation

Estuary Target

This area represents estuary habitat (Collins 2000) that is targeted for Skagit chinook habitat restoration and protection because of research that shows that estuary habitat in the Skagit River Basin is limiting for ocean-type chinook. Information to support this conclusion was presented by Eric Beamer to the Strategic Planning Committee in 2000 and is contained in a Skagit System Cooperative (SSC) progress report (Beamer et al 2000). Also, two habitat types contained in this area – blind channels and estuarine emergent marsh - were determined to be “critical” habitat for chinook in the Skagit Watershed Council’s Strategy (SWC 1998). There are numerous other scientific reports documenting the importance of estuarine habitats to chinook, including: Aitkin 1998; Hayman et al. 1995, Healy 1980, MacDonald et al. 1988, Phillips et al 1980, Phillip et al 1981, Shreffler et al. 1992, Simenstad et al. 1982. Restoration and protection of these estuarine habitats will also have significant benefits for many other species, including coho and native char. In an effort to better refine our targeting approach, the Samish estuary was removed as a target area for 2001 because it is not significantly utilized by Skagit chinook stocks, which are target species for the Council.

Delta Target

This area represents the remainder of the Skagit River’s geomorphic delta outside the Estuary Target area and is targeted for salmon habitat restoration and protection because of research that shows that loss of the rearing habitat provided by distributary channels in the Skagit River Basin is limiting for coho (Beechie et al 1994). This research found that loss of distributary channels and side channel sloughs accounted for up to 70% of the coho production losses documented in the Skagit River Basin. This area is targeted specifically, in addition to the estuarine habitat, because all the distributary channels in the basin are located in the Skagit River’s geomorphic delta. Actions that protect and restore salmonid habitat functions in these channels within this area are targeted. Restoration and protection of these channel habitats will also have significant benefits for many other species, including chinook and native char.

Floodplain 1 and 2 Target

This area represents floodplain reaches targeted for salmon habitat restoration and protection primarily because of research that shows that side channel sloughs and distributary channels (anadromous habitat that dominates the floodplain areas) accounted for up to 70% of the coho production losses documented in the Skagit River Basin (Beechie et al 1994) as well as the importance of mainstem floodplain habitat for chinook spawning and rearing. Also, off-channel habitat of main river reaches was determined to

be “critical” habitat for coho and chinook in the Council’s Strategy (1998). Floodplain 1 Target reaches are main river reaches targeted based on two factors: 1) the reach incorporates a portion of one or more of the top ten WAUs for coho production based on unpublished data analyzed in Beechie et al (1994); or 2) the reach was determined to be above average for chinook density or abundance from unpublished spawning survey data (1952-1992) from the Washington Department of Fish and Wildlife and analyzed by Eric Beamer and George Pess (NMFS). These main river floodplain reaches were delineated based on analysis of 1998 digital orthophotos from the Washington Department of Natural Resources. Floodplain 2 Target reaches were targeted based on their inclusion in one or more of the top ten WAUs for coho production. These reaches represent floodplain habitat in the anadromous zone of these WAUs outside the large river floodplain. Actions that protect and restore salmonid habitat functions in these channels and open water habitats within these floodplain reaches are targeted. Restoration and protection of these habitats in these floodplain reaches will also have significant benefits for other species, including native char. The Council will place a higher priority on projects that restore floodplain habitat or reconnect isolated habitat in the Floodplain 1 Target reaches (e.g, side-channel sloughs) than in the Floodplain 2 Target reaches primarily because of research indicating greater coho smolt production potential from side channel habitats than tributary habitats (Beechie et al 1994).

Watershed Process Target

This area represents Watershed Assessment Units (WAUs) where one of two criteria were met: 1) The WAU was determined to be impaired or likely impaired for both sediment supply and peak flow hydrology in the Council’s assessment of landscape process conditions contained in the Council’s Strategy Application (2000); OR 2) The WAU is one of the top ten WAUs for coho production or contains a portion of one of the reaches rated above average for chinook abundance or diversity (Unpublished data, WDFW) AND the WAU was determined to be impaired or likely impaired for either sediment supply or peak flow hydrology in the Council’s Strategy Application. The basis for targeting these areas for watershed process restoration and protection is research showing that impaired watershed processes (sediment supply and peak flow hydrology) are limiting egg to fry survival for both coho and chinook (Seiler et al, 1998; Beamer and Pess 1999; Beamer et al. 2000). Eric Beamer presented data supporting this conclusion for chinook to the Strategic Planning Committee in 2000, but it is assumed that the same processes are affecting coho, native char and other species because they are also subjected to peak flows during egg development (Montgomery et al 1999). Actions that protect functioning watershed processes (e.g., acquisitions or easements) and/or restore impaired sediment supply and peak flow hydrology (e.g., erosion control through road closures or improvement, riparian planting, etc.) within these WAUs are targeted.

Baker River System

The Baker River system is not included as a target area in the Council's Year 2001 strategic approach, but warrants attention. The Baker River system is partially isolated from the Skagit by Lower Baker and Upper Baker hydroelectric dams (the Baker River Hydroelectric Project) which are entering the Federal Energy Regulatory Commission (FERC) relicensing process. The Baker basin (upstream of the Upper Baker Dam) contains numerous miles of high quality salmon habitat both in natural and moderately disturbed conditions. The basin is underutilized by anadromous fish at this time due to downstream passage problems. The time to address these concerns is during the relicensing period. The FERC licensee, Puget Sound Energy, is working with interested parties through various working groups to define the relicensing process and resolve concerns. The Council encourages the development of a more fish friendly passage system.

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